

Commissioner for Patents

SN 09/642,052

**REMARKS**

The Examiner has objected to the abstract of the disclosure. The Applicant has amended the abstract in order to comply with MPEP §608.01(b).

Claims 1 to 10 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Bullister (US Patent 5,886,735) in view of Canon (US Patent 5,742,335). The Applicant has cancelled claims 1 to 10, directed towards an apparatus, and replaced them with claims 11 to 27, directed towards a method.

Independent claim 11 is directed to a method for providing audio and visual communication between a speaker and at least one hearing impaired person and comprises the steps of providing the speaker with a headset frame having a camera attached thereto and positioned to capture images of the speaker's mouth; providing the at least one hearing impaired person with at least one display; capturing continuous video images of the speaker's mouth using the camera; and transmitting the images in real-time to the at least one display for the at least one hearing impaired person to view such that movement of the speaker's mouth coincides with sound emitted by the speaker.

Support for claim 11 can be found at several instances in the disclosure. For example, page 13 of the detailed description describes figure 1, which illustrates a speaker wearing a headset frame 12 equipped with a small camera 14. Lines 5-11 of page 13 state:

"In use, a speaker S, such as a teacher for hearing impaired children H as shown in Figure 1, wears headset frame 12 on her head, and adjusts the position of camera 14 relative to her mouth, by means of the rotation of dial 28, of linear displacement of arm 40 inside dial 28, and of rotation of camera 14 on joint 46. The purpose of adjusting the camera 14 is for its lens 48 to precisely target the mouth of speaker S and to be located exactly ahead of the speaker's mouth, so that the images caught by the camera 14 are the images of at least the mouth, and preferably also all the facial expressions of the speaker S."

Figure 2 illustrates the hearing impaired children H provided with displays 20. Page 13, lines 12 to 21 describe how the images are transmitted to receivers that are coupled to the displays and the images are displayed for the hearing impaired children to view the

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mouth of the speaker. Page 16, lines 9 to 21 describe how the transmission is done in real time and how this allows the voice of the speaker to coincide with the images of his or her mouth on the display.

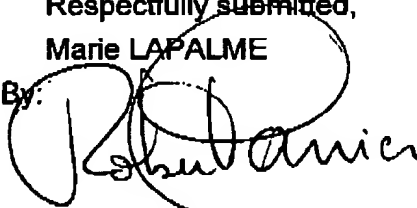
Furthermore, claims 12 to 27 are also supported throughout the specification. Page 13, lines 1 to 4 describe the microphone and the transmission of the sound in real time. Page 19, lines 8 to 20 describe the use of low-power wireless transmitters. Page 18, lines 4 to 12 describe having the dual band system with the specific frequency ranges for each type of signal. Page 19, lines 2 to 3 describe the use of redundant channels for best reception. The voice recognition software is describe at page 21, lines 15 to 21 and page 22, lines 1 to 3. Figure 2 shows each hearing impaired person having his or her own display and also illustrates how the amplifying device can be a hearing aid device. Page 13, line 11 describes how the camera preferable catches images of all of the facial expressions of the speaker. Therefore, no new subject matter has been entered as a result of this amendment.

The Applicant does not believe new claims 11 to 27 to be anticipated or suggested by any of the references currently of record.

In view of the foregoing, a Notice of Allowance for claims 11-27 is respectfully requested.

Respectfully submitted,  
Marie LAPALME

By:



Robert Carrier, Rég. No. 30,726

Ogilvy Renault  
1981 McGill College Ave. – Suite 1600  
Montreal, Quebec  
Canada H3A 2Y3

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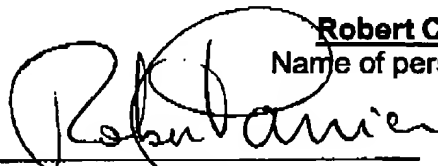
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Signature

**June 13, 2003**

Date